

doubt is given to the applicant. The examiner has not presented enough evidence to overcome this presumption.

Since the examiner has not proven a lack of unity of invention, the applicant asserts that the election of species requirement is improper and should be withdrawn.

IV. The Examiner has not Explained why any Group does not Meet the “Special Technical Feature” Disclosed in this Application, as Defined in PCT Rule 13.2

In order to fulfill the requirement of unity of invention, PCT Rule 13.2 requires:

a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The subject application discloses a technical feature. See, for example, the specification on page 2 line 20 through page 3 line 21, which states that:

[T]he object of the present invention is to provide a transistor using a transparent channel layer made of zinc oxide or the like, which is transparent partially or entirely, because an orientation control of the zinc oxide and a valence electron control thereof that has been heretofore difficult is now possible. Specifically, the object of the present invention is to provide a transistor which uses a transparent material such as the zinc oxide or the like for a channel layer (conductive layer) so that the channel layer does not have a photosensitivity for the visible light region, and removes a necessity to form a light shielding layer, thus increasing an area rate of a display portion of a liquid crystal display device or the like.

Furthermore, the object of the present invention is to use a transparent transistor for various kinds of applications in an optical device field for use in

driving a light emission device such as a plane light emission laser and an electroluminescence device and for use in a memory. Still furthermore, the object of the present invention is to provide a semiconductor device used as a transparent electronic device for various kinds of wide applications in addition to a driving circuit requiring no light shielding layer.

According to first solving means of the present invention, a transistor is provided,

which comprises:

a transparent channel layer using any one of zinc oxide ZnO, zinc magnesium oxide $Mg_xZn_{1-x}O$, zinc cadmium oxide $Cd_xZn_{1-x}O$ and cadmium oxide CdO; and

a source, a drain and a gate in which a transparent conductive material such as conductive ZnO doped or undoped with any one of group III elements, group VII elements, group 1 elements and group V elements, a transparent conductive material such as In_2O_3 , SnO_2 and $(In-Sn)O_x$, or an untransparent electrode material are used partially or entirely.

The examiner has not explained how any claim fails to provide the special technical feature disclosed therein. Moreover, the examiner provides no explanation supporting the conclusion that, "Species I does not require the particular structure feature recited on Species II through IV, and vice versa." Page 3 lines 14-15. Therefore, the applicant asserts that the election requirement is improper and should be withdrawn.

V. Requirement that there be a Serious Burden Specified as Set Forth in MPEP 803

The imposition of a substantial examination burden is a requirement under US examiner guidelines for imposing a requirement for election. The examiner has not shown that examining the proposed four species imposes a substantial examination burden.

MPEP 803 states that:

If the search and examination of an entire application can be made without

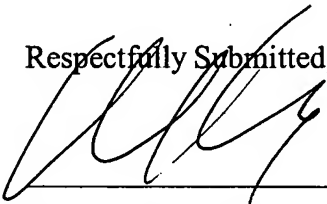
serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.

The applicant submits that the search and examination of the entire application can be made without serious burden because there is no indication that additional searches in separate class/subclass are required to examine the four proposed species. Therefore, the examiner is going to need to conduct the same search, whether examining Species I, II, III, or IV. Accordingly, there is no serious burden on the examiner to examine the entire case on its merits.

For all of the reasons presented above, the election requirement is improper and should be withdrawn.

1/17/06
DATE

Respectfully Submitted,


Richard A. Neifeld
Attorney of Record
Registration No. 35,299

DHS/BTM

Printed: January 12, 2006

Y:\Clients\Hashizume\HASH0013\HASH0013UPCTUS1\Drafts\RestrictionResponse_060112.w
pd